What is claimed is:

1. An electric heating device having a substantially rod-shaped body and for applying heat from an end portion of the body to an outside material, the heating device comprising :

a heat generating member which is electrically energized to generate heat for heating the end portion of the body; and

a temperature sensor for detecting the temperature at the end portion, the temperature sensor being located distant from the heat generating member in the longitudinal direction of the body.

2. An electric heating device according to Claim 1, wherein the temperature sensor is located in a forward portion of the body, the heat generating member includes a heater core of high heat conductive material, and a heating coil wound around the heater core, and heat is conducted through the heater core in the longitudinal direction of the body from the heat generating member to the end portion of the body.

3. An electric heating device according to Claim 1, further comprising a heater lead wire connected with the heat generating member and extending within the body in the longitudinal direction of the body, and a sensor lead wire connected with the temperature sensor and extending within the body in the longitudinal direction of the body, each of the heater lead wire and the sensor lead wire having an exposed portion exposed to outside of the body to be electrically connected with an outside terminal.

4. An electric heating device according to Claim 3, further comprising a wire supporting member formed with a wire receiving hole for receiving a free end portion of the heater lead wire or the sensor lead wire, and an opening for communicating the wire receiving hole with outside of the body to expose the exposed portion to the outside.

5. An electric heating device according to Claim 4, wherein a surface of the exposed portion of the heater lead wire or the sensor lead wire is treated to reduce contact resistance.

6. An electric heating device according to Claim 4, wherein the exposed portion is nickel-plated.

7. An electric soldering iron comprising:

a substantially rod-shaped body including a tip for applying heat from the tip to an electric part;

a heat generating member which is electrically energized to generate heat for heating the tip; and

a temperature sensor for detecting the temperature at the tip, the temperature sensor being located distant from the heat generating member in the longitudinal direction of the body.

8. An electric soldering iron according to claim 7, wherein the tip is made of a metal

including copper or silver as its main component.

9. A handheld tweezer-type electric part handling device having a pair of legs, each leg having the structure of the electric heating device as claimed in claim 1.

10. A handheld device according to Claim 9, wherein the body and end portion are substantially straight and an included angel is between 10° and 14° when the legs are closed.

11. A handheld device according to claim 10, wherein the included angle is 12°.